

# Some Antarctic Basics...

## Antarctica...

This land-based continent is the highest, driest, coldest, windiest, and emptiest place on earth. An ice sheet covers approximately 98% of Antarctica. At its thickest point the ice sheet is 4,776 meters deep. This ice is approximately 90% of all the world's ice (by volume) and is 70% of all the world's fresh water. There are many penguins and abundant sea life along the coast – but there is little life on the continent, and there are no indigenous peoples.



*A killer whale surfaces behind the Coast Guard icebreaker Polar Sea in McMurdo Sound.*

## Temperatures...

The mean annual temperature at South Pole Station is minus 56°F. During the austral summer, temperatures at McMurdo Station may reach as high as 50°F, while at South Pole Station, the summer temperature may reach 0°F. Palmer Station has a milder climate, with summer temperatures reaching as high as 55°F.

## Daylight and Darkness...

Simply put, much of the area below 66.5 degrees south enjoys one long day and one long night each year – with weeks of sunrise and sunset in between. There are spectacular displays of aurora australis (southern lights) during the winter darkness.

## Ownership...

No nation owns Antarctica. The Antarctic Treaty, which has been signed by 45 countries, reserves the area south of 60 degrees south as a zone for the peaceful conduct of research. Treaty nations coordinate and cooperate to maximize research results and minimize logistics requirements.

## Size and Distance...

The continent is roughly 14 million sq. kilometers (5.4 million sq. miles). The USA is smaller at 9.36 million sq. kilometers (3.6 million sq. miles). The area of sea ice around Antarctica varies from 4 million sq. kilometers (1.0 million sq. miles) in summer to 20 million sq. kilometers (7.7 million sq. miles) in winter. The distance from Washington, D.C., to McMurdo Station is approximately 14,830 kilometers (9,920 miles).

## Science...

Antarctica provides excellent conditions for scientific research on such topics as global warming, ozone changes, climatology, earth sciences, glaciology, astronomy, UV radiation, oceanic circulation, marine ecosystems, meteorite studies, etc.

## History...

The existence of Antarctica was only hypothesis until it was first sighted in 1820-21. No one set foot on the continent until 1895. The South Pole was first reached in 1911 and established as a year-round research station in 1956. Antarctica's history is packed full of extraordinary stories of heroism and survival.